

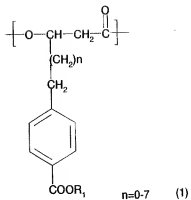
C. Remarks

The claims are 1-5 and 12-40, with claims 1, 12, 24 and 28 being independent. Claim 4 has been amended to delete formulas (13) and (14). No new matter has been added. Reconsideration of the claims is expressly requested.

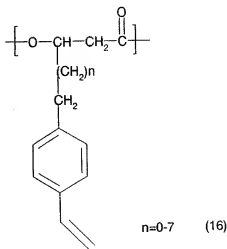
Applicants and their undersigned attorney wish to thank the Examiner for the courtesies extended during a telephonic interview conducted on or about September 17, 2007. During the interview, the undersigned advised the Examiner that the present claims, by virtue of the proviso, exclude the unit of formula (16) from the claimed polyhydroxyalkanoate. The Examiner agreed.

Claims 1-6 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,645,743 B2 (the '743 patent). Claims 1-6 and 12-40 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-16 of the '743 patent. The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly review some of the features of the presently claimed invention. That invention, in pertinent part, is related to a polyhydroxyalkanoate (PHA) containing in its molecule one or more 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid units represented by chemical formula (1):



In this structure, n is an integer selected from 0 to 7 and R<sub>1</sub> is H, Na or K. If the PHA contains more than one unit represented by formula (1), n and R<sub>1</sub> may differ from unit to unit. Importantly, aside from including one or more 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid units represented by a chemical formula (1), the PHA does not contain in its molecule a unit represented by formula (16):



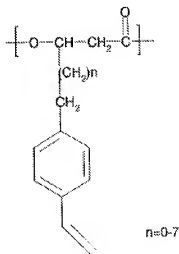
in which n is an integer selected from 0 to 7.

As a matter of law, “[a] claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed.

Cir. 1987) (Emphasis added). In fact, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). Negative claim limitations must be analyzed in the same manner as the positive claim limitation, and it is legal error to disregard negative limitations. *Ex parte Grasselli*, 231 U.S.P.Q. 393 (Bd. App. 1983) *aff’d mem.* 738 F.2d 453 (Fed. Cir. 1984).

Accordingly, in order for the ‘743 patent to anticipate the present claims, this document must disclose, either expressly or impliedly, a PHA that (i) includes at least one unit represented by formula (1) and (ii) does not include the unit represented by formula (16). This is clearly not the case.

The ‘743 patent is related to a PHA copolymer, which includes a 3-hydroxy- $\omega$ -(4-vinylphenyl)-alkanoate unit represented by the following formula:



This 3-hydroxy- $\omega$ -(4-vinylphenyl)-alkanoate unit is identical to the unit represented by formula (16) in the present claims, which, as agreed by the Examiner in the aforementioned

interview, has been specifically excluded from the presently claimed PHA. Accordingly, since the '743 patent fails to disclose a PHA structure identical to the one presently claimed, i.e., a PHA that contains at least one unit of formula (1) and no units of formula (16), it cannot anticipate the present claims.

The Examiner had indicated to the undersigned that he believes the present claims to be anticipated because the claims in the '743 patent potentially recite the presently claimed unit of formula (1). This, however, is not a dispositive issue with respect to anticipation. The present claims are not directed to the structure of formula (1). The claims relate to a PHA that includes the structure of formula (1) and does not include the structure of formula (16). As discussed above, in order to anticipate, the '743 must disclose a PHA having both such properties and not a merely the unit of formula (1). Limiting the anticipation analysis solely to the unit of formula (1) and disregarding the proviso by not requiring an anticipatory reference to exclude the unit of formula (16) is legal error.

Furthermore, Applicants respectfully submit that the '743 patent cannot render the present claims obvious. Regardless of the substantive basis, the '743 patent cannot be used in as reference in an obviousness rejection due to the common assignee exclusion of 35 U.S.C. § 103(c).<sup>1</sup>

With respect to the double patenting rejection, the Examiner advised the undersigned during the interview that this rejection is issued based on anticipation of the

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<sup>1/</sup> The '743 patent was published on November 11, 2003, which is after the October 23, 2003 international filing date of the subject application. Therefore, the '743 patent qualifies as prior art only under 35 U.S.C. § 102(e), and such art is not available for use in an obviousness rejection of a commonly owned application.

present claims by the claims of the '743 patent. As is clearly shown above, the present claims are not anticipated by the claims of the '743 patent. Moreover, the present claims are not an obvious variant of the claims in the '743 patent. It is clear that it would not have been obvious to exclude a monomer unit of formula (16) from the claims of the '743 patent (formula (1) in the '743 patent) since this unit is a required component of the copolymer claimed in the '743 patent.

The Examiner will appreciate that the present claims and the claims in the '743 patent are mutually exclusive, since the present claims expressly exclude the unit of formula (16) from the PHA, while the claims in the '743 require the presence of this unit. There is no extension of the monopoly once the claims of the '743 patent expire, since one can clearly practice those claims without infringing the claims in the instant application.

Claims 1-6 and 12-40 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-40 of co-pending Application No. 10/532,136. The grounds of rejection are respectfully traversed.

The Examiner alleges that the claims in the '136 application could be identical or could encompass those in the present case when the present claims include the residue of formula (13) or (14). Also, the Examiner has advised the undersigned that this rejection is also based on "anticipation" as the above rejection over the '743 patent.

Initially, Applicants note that claim 4 has been amended to delete formulas (13) and (14) to avoid any possible confusion. Furthermore, with respect to the issue regarding anticipation, the present claims and the claims in the '136 application are mutually exclusive. Specifically, claim 1 in the '136 application specifically excludes  $R_x$  that is  $C_6H_5-COOR'$  in which the substituent introduced into the para- position of the

phenyl group is such that R' is H, Na or K, i.e., the claims in the '136 application exclude the unit of formula (1) as recited in the present claims. Thus, clearly, the present claims are not a double patenting of the claims in the '136 application.

Wherefore, withdrawal of the outstanding rejections and expedient passage of the application to issue are respectfully requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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